THE RELUCTANT ROLL-OUT OF CATCHMENT MANAGEMENT AGENCIES:

Assessing the key risks and consequences of delays in finalising institutional arrangements for decentralised water resource management

Report to the
Water Research Commission

by

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WRC Report No. 2943/1/20
ISBN 978-0-6392-0139-9

April 2020

WATER
RESEARCH
COMMISSION

Obtainable from

Water Research Commission

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EXECUTIVE SUMMARY

CMAs have been part of DWS planning since the National Water Act (NWA) of 1998, with the purpose of delegating water resource management to the regional or catchment level and to involve local communities. An implementation plan for the establishment of 19 CMAs expected all 19 to be established by 2000. However, to date only two of the original 19 have been established.

In 2012, the CMAs were consolidated from 19 to 9 CMAs, with the two existing CMAs expanding their areas of jurisdiction. Having granted a list of delegated powers to the two existing CMAs in January 2015, in December 2015 the then Minister of Water and Sanitation withdrew some of the powers that had been mandated to the Inkomati Usuthu Catchment Management Agency (IUCMA) and Breede Gouritz Catchment Management Agency (BGCMA). In 2017, the DWS announced that it had decided to create a single CMA. This was received with shock, and raised questions about the commitment of government to a CMA system. In 2018, the new minister, Mr Gugile Nkwinti, announced that the establishment of nine CMAs will now go ahead.

The purpose of this research was to engage, in the form of a rapid appraisal, with three main questions in the wake of a difficult history of more than 20 years:

1. To understand the dynamics behind delays in finalising institutional arrangements for decentralised water resource management.
2. To understand the consequences of these delays.
3. To develop and recommend priority actions to deal with delays in CMA establishment.

1. Reasons for delays

Based on interviews in the IUCMA, BGCMA, Berg/Olifants Water Management Area, Olifants Water Management Area and the Pongola-Umzimkulu Water Management Area, as well as a workshop responding to a discussion paper, the research revealed a large number of explanations for the delays, some political, some administrative and some of an economic nature.

1. The principle of decentralisation may not be accepted by the ruling party.
2. Political turn-over and lack of IWRM understanding at ministerial and top official level.
3. Lack of strong DWS leadership and clear communication to internal and external stakeholders.
4. Hydrological logic should not override political logic.
5. Trade unions oppose agentisation which they see as a form of privatisation.

6. Boards are expensive and risky.
7. Decentralisation may limit scope for transformation.
8. Strong local actors will dominate CMAs as decentralised bodies.
9. State capture in the water sector delayed the establishment of CMAs as it did not want effective regulation.
10. Regional DWS heads fear losing turf and position to CMAs.
11. High ranking officials in DWA fear a shrinking role for DWS as a department.
12. Trade union members fear losses in transition.
13. There are obstacles to creating proto CMA structures within DWS.
14. CMAs have to fight for institutional space.
15. CMAs are expensive and there are questions about how they are to be funded.
16. There is not enough expertise for 9 CMAs

2. Consequences of delays

This section looked at the current and potential abilities of two functional CMAs to deal with issues, and looking at situations that could have been handled differently had there been a CMA:

1. CMAs are better positioned to deal with water allocation in light of droughts, current variability and the challenges of climate change.
2. CMAs support resource poor farmers and are well positioned to deal with transformation of water institutions.
3. CMAs are up to date on the licensing of water use, and able to monitor compliance and act on compliance failures.
4. CMAs are able to focus on water quality and protection of water resources against pollution from dysfunctional wastewater works, mines, industry, and agriculture.
5. CMAs are good at engaging the public for awareness, and supporting active participation of stakeholders in water resource management.
6. CMAs are able to plan strategically and respond to challenges through adaptive management.
7. Proto-CMAs are not able to operate to the same effect as CMAs.
8. CMAs will be positioned to deal with current failures in water sector which are necessitating other actors to stepping in to fulfil functions neglected by DWS in catchments.

3. Priority actions to deal with delays in CMA establishment

Which are the most fruitful areas of action to ensure and speed up the establishment of functional CMAs that will be able to live up to expectations of various stakeholders? The following priority

actions were developed in the 21 May 2019 workshop, to deal with the dynamics that have resulted in the delay in establishing CMAs:

1. Support the DWS in committing to a clear strategy for establishment, which includes negotiation with key stakeholders and a clear communication strategy empowering officials on the ground in their interactions with stakeholders.
2. Document and present in clear (non-specialist) language, the achievements and experiences of the two existing CMAs as an argument for establishing CMAs, and practical guidelines emerging from experience.
3. Develop a clear and mutual understanding with the trade unions involved, about the public nature of CMAs, as well as details of the transition to CMAs of certain DWS functions, as it will affect their members. Moreover, their support will help implement CMAs.
4. Work with stakeholders who have been part of CMA establishment processes, especially in catchment management forums, and win back their trust.
5. Make sure that CMAs are oriented towards and willing to effect transformation in Water Use Allocation as well as institutions managing water, such as Irrigation Boards and Water User Associations, and that powerful local actors are not in a position to dominate CMA decision making.
6. Understand the concerns of Treasury about funding CMAs, and support DWS in presenting a clear case to Treasury. This should include the need for funding based on water use charges as well as direct fiscal support for public interest functions.

ACKNOWLEDGEMENTS

The project team wishes to thank the following people for their contributions to the project:

Bryan Ashe, Eustathia Bofilatos, Tony Brutus, Rod Bulman, Derril Daniels, Hameeda Deedat, Derick du Toit, Willie Enright, Dr Thomas Gyedu-Ababio, Bashan Govender, Johan Groenewald, Annabel Horn, Pravitha Jairam, Likhetso Khaile, Nic Knoetze, Joseph Mabunda, Dineo Maila, Solly Makate, Hassani Makhubele, Nani Mangoale, Kenneth Masindi, Stuart Maxwell, Richard Meissner, Mercy Mosupye, Sizile Ndlovu, Misaveni Ngobeni, Mlungisi Ntuli, Prof Tally Palmer, Dr Sharon Pollard , Janse Rabie, Wendy Ralekoa, Prof Kevin Rogers, Marcus Selepe, Debbie Turner, Hubert Thompson, Jan van Staden, Elmarie van Rooyen, Francois van Wyk, Derek Weston.

Special thanks to John Dini and Virginia Molose from the WRC.

CONTENTS

ACRONYMS & ABBREVIATIONS

BGCMA	Breede Gouritz Catchment Management Agency
CMA	Catchment Management Agency
CMF	Catchment Management Forum
CMS	Catchment Management Strategy
DEA	Department of Environmental Affairs
DWA	Department of Water Affairs (historic)
DWAF	Department of Water Affairs and Forestry (historic)
DWS	DepZrtment of Water and Sanitation
FAO	Food and Agriculture Organisation of the United Nations
IB	Irrigation Board
IUCMA	Inkomati Usuthu Catchment Management Agency
IWRM	Integrated Water Resources Management
KZN	KwaZulu-Natal
NEHAWU	National Education, Health and Allied Workers Union
PMG	Parliamentary Monitoring Group
Proto-CMA	Proto Catchment Management Agency
SAM	Strategic Adaptive Management
SCOPA	Standing Committee on Public Accounts
WMA	Water Management Area
WUL	Water Use License
WWTW	Wastewater Treatment Works

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CHAPTER 1: BACKGROUND

1.1 INTRODUCTION

This report emanates from a WRC call for:

> **Assessing the consequences of delays in finalising institutional arrangements for decentralised water resource management.** This project undertakes a rapid assessment of the key risks and consequences arising from the incomplete transition to a new, stable set of institutional arrangements for decentralised water resource management in South Africa.
>
> This will include comparing the functionality of water resource management in areas that have operational Catchment Management Agencies (CMAs) with those that do not; identifying the key drivers that are currently impeding the finalisation of institutional arrangements for decentralised water resource management, along with potential interventions to address these drivers; and assessing the extent to which the status quo has influenced the ability of the water sector to respond to drought and other water related disasters. Where relevant, the project should make recommendations for amendments to the National Water Act and other applicable legislation.

The report focuses on three main questions.

1. What are the dynamics behind delays in finalising institutional arrangements for decentralised water resource management?

Understanding histories of delays, and positions or interests that may be responsible for the delays in the roll-outs of the CMAs.

2. What are the consequences of these delays?

Soliciting opinions about the current and potential abilities of two functional CMAs to deal with issues, and looking at situations that could have been handled differently had CMAs been in place:

2.1 The ability to manage water allocation in light of droughts, current variability and the challenges of climate change.
2.2 Water allocation reform, and support to resource poor farmers and land reform.

2.3 Licensing of water use, and ability to monitor compliance, and act on compliance failures.
2.4 A specific focus on water quality, including the ability to protect water resources against pollution from dysfunctional wastewater works, mines, industry, and agriculture.
2.5 The ability to engage the public for awareness, and active participation of stakeholders in water resource management.
2.6 The ability to plan strategically at catchment scale and respond to challenges through adaptive management.

In the course of the research two extra dimensions were added:

2.7 The limitations of working through proto-CMAs rather than CMAs and
2.8 Other actors stepping in to fulfil functions not being fully performed by DWS in catchments.

3. What are the priority actions to deal with delays in CMA establishment?

Which are the most fruitful areas of action to ensure and speed up the establishment of functional CMAs that will be able to live up to expectations of various stakeholders?

1.2. BACKGROUND

In June 2017, Mrs Nomvula Mokonyane, then Minister of Water and Sanitation, announced the consolidation of all CMAs into a single entity for managing water resources at catchment scale (the so-called “single CMA”). The response from the water sector was one of shock. Her successor, Mr Gugile Nkwinti, reversed this decision in his Budget Vote speech to the National Assembly in May 2018. But it was a wake-up call since the incident showed at least three important things: (1) there are many stakeholders in the water sector who want the CMAs to be established (2) there is a limit to which the concept of CMAs can be stretched (it has to include decentralisation and people’s participation, for example) and (3) it was possible for a politician and minister of DWS, plus senior officials, to conceive of catchment management within a single, centralised organisation, questioning to what extent decentralised catchment management is accepted as a legislated and policy mandate.

CMAs have been part of the intended institutional landscape since the National Water Act (NWA) came into effect in 1998. In its preamble, the NWA specifically recognises “… the need for the integrated management of all aspects of water resources and, where appropriate, the delegation of management functions to a regional or catchment level so as to enable everyone to participate”. Chapter 2 specifically foresees that “… water will be managed at regional or catchment level, in defined water management areas.” And Chapter 7 of the NWA makes provision for “the progressive establishment by the Minister of catchment management agencies. The purpose of establishing

these agencies is to delegate water resource management to the regional or catchment level and to involve local communities, within the framework of the National Water Resources Strategy." The CMA roll-out thus started with a clear legal mandate. As soon as this mandate was legislated – still in 1998 – a DWAF implementation plan was drawn up, envisioning the process of establishing CMAs to be completed before 2000 (DWAF and WRC 1998).

However, finalising the institutional arrangements for decentralised water resource management has been a slow process (see history in Annex A). Of the original 19 CMAs in the DWS planning, only two have been established and are functioning, namely the Inkomati Usuthu Catchment Management Agency (IUCMA) and the Breede Gouritz Catchment Management Agency (BGCMA). In 2012, after an institutional review, the CMAs were consolidated from 19 to 9 CMAs, with the two existing CMAs expanding their areas of jurisdiction. A notable aspect of this reorganisation was the closer coincidence between CMA and provincial political boundaries, for example the Pongola-Umzimkulu Water Management Area which largely coincides with the KZN province, which has a very active proto-CMA driven by the KZN DWS regional office (see Munnik et al., 2016). Having delegated powers to the two existing CMAs in January 2015, in December 2015 the then Minister of Water and Sanitation withdrew some of the powers that had been mandated to the IUCMA and BGCMA. In 2017, the DWS announced that it had decided to create a single CMA, and in 2018, the new minister, Mr Gugile Nkwinti, announced that the establishment of nine CMAs will now go ahead.

In order to do their work, CMAs have 3 types of powers:
1. **Inherent powers** – such as conducting a broad public participatory process to produce a Catchment Management Strategy. Other inherent powers flow from its existence as a corporate body – e.g. to have bank accounts.
2. A**ssigned powers** – additional powers that are permanently assigned to CMAs (when they are deemed ready). These powers are permanent and cannot be withdrawn.
3. **Delegated powers** – these can be delegated and withdrawn, such as licensing water use, billing and collecting water use charges.

1.3. THEORY AND EXPLANATIONS

Being a rapid appraisal, this work does not explicitly engage with theory. However it does need to engage with multiple explanations presented by different actors, who are based in different points of an 'emergent Catchment Management system', where catchments not only differ in terms of geography and history, but are also at different stage of development in terms of catchment management institutions. Some of these explanations are competing and some overlap.

The research follows a critical realist approach (Bhaskar, 1993; Norrie, 2010) to causes and dynamics: (1) anything that has a real effect can be described as a cause, including ideas or perspectives that lead to action, whether these ideas are misguided or not (2) different dynamics may be at play in a single situation.

What we may term 'emergent catchment management' is seen as an incomplete totality, meaning that all parts are taken to be related, but may be in tension with each other, may display internal breaks and discontinuities, and are subject to continuous change as a dynamic, developing social-ecological system. So, for example, catchment management is undertaken, as planned, by two CMAs, by the “proto-CMAs” which still function within DWS regional offices, as well as by actors who have stepped into the vacuums created by DWS' cash flow problems in recent years, for example water quality monitoring in the Olifants and Berg-Olifants catchments.

The implications of this point of departure include that various explanations can be simultaneously true, because (1) on the level of ontology, real life (open system) phenomena and processes are complicated, connected and influenced by many dynamics and (2) explanations (on the level of epistemology) may be offered from genuinely different settings, which settings may differ radically in terms of their immediate or visible dynamics.

As a work of rapid appraisal, the report does not undertake a literature review of the extensive body of literature on the topic by both the South African water sector, the WRC and international observers. A previous literature review (Munnik et al., 2016), identified just under 200 publications, and that is not all of it. In March 2008, an important international conference considered progress, challenges and critiques of the country's IWRM approach (see Karar, 2008). Most of this literature assumes the desirability of IWRM, and much of it gives practical guidance (e.g. “relationship to local government”). There are however exceptions to this general rule, for example Biswas, (2008), Bourblanc and Blanchon (2014), and Wester and Woerner (2002), who identify underlying conceptual issues such as the (very fundamental concept of) the use of hydrological boundaries for management units creating a tension with political management units, or Schreiner and Van Koppen (2014), who describe a “Developmental IWRM” as alternative. While this literature informs this research, the research focuses on immediate observations of participants and practical issues, experiences and arguments in the 'emergent South African catchment management system'.

1.4. METHODOLOGY

This research was undertaken as a rapid appraisal, as required in the terms of reference. Rapid appraisal is “a creative, structured use of a particular set of investigative tools for assessing a situation, topic, problem, or sector”, according to the Food and Agriculture Organisation of the United

Nations (FAO). It is rapid, uses diverse methods, provides a holistic, transdisciplinary picture, and works on an interactive or dialogic approach. Its aim is to allow planners to access timely information in an easily digestible form (FAO nd).

Interviews were conducted with relevant role players (e.g. current CMA staff, DWS staff, CMF participants, stakeholders in water sector and civil society) to pursue the following questions: From current experiences within the two functioning CMAs, what are the issues that a CMA can address? What issues are the two CMAs are addressing now? What are issues that the (other seven) CMAs could have addressed had there been a faster roll-out of CMAs? This necessarily has an aspect of speculation and thought experiment. The interviews were supported by references to relevant literature, and analysed in order to produce a discussion report with analysis and recommendations. The findings were tested in a workshop with stakeholders. The workshop on 21 May 2019 was attended by a total of 20 people bringing a wide variety of viewpoints including existing and proto CMAs, DWS, Irrigation Boards, trade unions, water boards, consultants and researchers.

The research focused on five areas:

- Inkomati Usuthu Catchment Management Agency (IUCMA)
- Breede Gouritz Catchment Management Agency (BGCMA).
- Berg/Olifants Water Management Area
- Olifants Water Management Area.
- Pongola-Umzimkulu Water Management Area

Ethical considerations included protecting the identity of persons in interviews, focus groups or meetings if being recognised could be a threat to them or their careers.

1.5. LAY-OUT OF REPORT

The next two chapters report on the interviews and findings, first on the question of dynamics causing delays, and then on the consequences of the delays. The final chapter offers a response from a group of stakeholders who have been intimately involved to the first three chapters of the report, as well as a way forward to support and speed up the establishment of functional CMAs that will be able to live up to expectations of various stakeholders.

CHAPTER 2: CAUSES AND DYNAMICS OF DELAY IN ESTABLISHING CATCHMENT MANAGEMENT AGENCIES

2.1 INTRODUCTION

This chapter presents and explores accounts of the dynamics behind delays in finalising institutional arrangements for decentralised water resource management – in other words to establish fully fledged CMAs. As argued above, various explanations can be simultaneously true, for example because the emergent catchment management system consists of different parts with different histories, hydrological realities (e.g. winter rain and summer water use creates specific dynamics in the BGCMA) and political and economic histories, or because different dynamics are visible to people in different positions.

The following explanations are drawn from conversations with a range of people. Interviews were conducted on the principle that specific sources would not be identified. As a result arguments are constructed from different sources without identifying them. The author sees this as justifiable because (1) the intent was to solicit frank and informed input from interviewees rather than what is 'diplomatic' to say and (2) the purpose of this research is to provide starting points for further discussions and not the final word. Some of these explanations were adapted or extended in the light of information shared in the workshop of 21 May. The report includes a list of all interviewees and participants in the 21 May workshop, excluding interviewees who requested to remain anonymous.

2.2 POLITICAL ISSUES

2.2.1 The principle of decentralisation

The ANC, as a centralised party, may not like decentralisation. Many officials argued that this was not the case, and indeed this would contradict a fundamental NWA principle of decentralisation. However, others reported experiencing an ongoing resistance against the establishment of CMAs, which was often not argued openly. Is there a propensity not to understand decentralisation, or to understand but resist it? Some evidence for this position is (1) the single CMA announcement in 2017 (2) the often remarked upon phenomenon of political deployees into top management within

the department “taking time” or being reluctant to understand and/or support CMAs. This is closely related to the next issue.

2.2.2 Political turn-over and lack of IWRM understanding at ministerial and top official level

This may be related to a phenomenon observed by many officials involved in these processes:

> “Every new minister, who comes with his or her advisers and new top officials into DWS, has to be convinced anew about the need to roll out CMAs. This takes three or so years, and at the end of the period, when the minister is convinced, we get the go-ahead. But then the process is interrupted when the new minister arrives...”

This is part of a broader pattern where politicians (ministers) and top officials are appointed without deep background in water issues. They then ignore established thinking in the water sector, or search out alternative advice as a result of trust issues between themselves and officials. This is not specific to the water sector, and may be understood as an early phase in the development of South Africa’s public administration where power is kept in the hands of politicians without allowing civil servants to develop their own momentum within the framework of the constitution and the law.

2.2.3 Lack of strong DWS leadership and clear communication to internal and external stakeholders

Early documentation (DWAF, 1998) warned that a decisive and strong change management process would be required to achieve the establishment of CMAs. However, this has not been forthcoming, as attested to by various sources, including officials involved and recent analysis (WRC, 2018). Of course, as in 2.2.1 and 2.2.2 above, when the political leadership of the department is unsure about the CMA roll-out, this shows in their communication. Lack of communication creates confusion, uncertainty and unwillingness. The lack of detailed plans tie the hands of DWS officials responsible for the establishment of CMAs in explaining to stakeholders what the future holds. Officials and CMF participants have pointed to a lack of clear communication leading to confusion as well as disillusionment. Lack of clarity about how DWS officials’ careers will be affected by the establishment of CMAs and the transfer of DWS functions to them, (see below) is also ascribed to the lack of clear communication.

The lack of clear communication may be a tactical mistake or may be related to deeper issues.

2.2.4 Hydrological logic should not override political logic

In another version, there is opposition to the basic IWRM principle of organising along hydrological catchments. On the ground arguments are that local and district municipalities are important for water services. This argument seems to have had some influence in demarcation of the jurisdictions of the nine CMAs, particularly in the Pongola-Umzimkulu proto-CMA. This links to broader arguments about the trade-offs between a biophysical framing for managing water resources according to hydrological (catchment) boundaries, and a political framing which manages hydrologically fragmented water resources. Some analysts argue that this goes back to an original (1994) separation between water resources and water services, which are governed by two separate acts[1]. Constitutionally, water resources are managed by national government, and water services by local government. A related argument points to the existence of around 30 Inter Basin Transfers. It is not clear whether the existence of IBTs should be an argument for or against management based on catchments.

2.2.5 Trade union opposition to agentisation as a form of privatisation

The establishment of CMAs is seen, by trade unions, as a form of "agentisation", which in turn is regarded as a form of privatisation. In January 2018 the trade union NEHAWU declared in a press release:

> "As the national union, we vehemently reject any form of agentization of departmental functions as we see this as another form of subjecting the department to corrupt processes of the highest order which will result in increasing the cost of water to ordinary citizens. The transferring of workers functions to the CMA will render our members and workers redundant and this shall never be acceptable by the national union as it will lead to job losses. What worries us the most is that no consultations has taken place in the bargaining chamber on the proposal for the formation of the agency and already the department is informing its employees that the CMA is going to be established. In actual fact, in one of the 2017 chamber meetings, the department dismissed the union when we asked them if they were continuing with the project."

As can be seen from the quotation, this concern is linked with three others: (1) job losses in transition to CMAs, (2) more expensive cost of services (3) lack of consultation and communication (with workers and trade unions as internal stakeholders).

[1] The Water Services Act of 1997, and the National Water Act of 1998.

In what sense can be agentisation be regarded as a form of privatisation? Unions argue that agentisation is a forerunner to privatisation. Counter-arguments are that CMAs remain state entities (reporting to the water minister), but that they do take a corporate form. Participants from NEHAWU in the 21 May meeting, argued that agentisation does not necessarily lead to privatisation, although it may open the door to it. It seems highly unlikely that CMAs can be privatised.

2.2.6 Boards are expensive, and risky

CMA boards – like boards elsewhere – are expensive, and not always that good at providing guidance or representing people's interests and agendas. There has been debate between having representative (interest based) vs. fiduciary (expertise based) boards for CMAs. There are other risks, perhaps illustrated by the IUCMA case, in which a previous board chairperson joined a political party (COPE), which raised great suspicions among the governing party that money to this CMA would find its way to COPE!

Minister Mokonyane, in arguing for a single CMA, raised the argument that 9 CMAs, each with their own governing board, etc., will create an oversight burden for the department (i.e. the minister), in addition to the existing burden of dealing with almost 200 water sector institutions including Water Boards, the WRC and Water Users' Associations (see DWS, 2017).

2.2.7 Decentralisation may limit scope for transformation

There are questions about the **scope for transformation** in one institutional set-up rather than another. There is a concern that strong local actors like irrigation boards may stymie water reallocation efforts. Already in 2009, Merrey et al. (2009), in a broad ranging paper that engaged with the first suspension of the establishment process for a CMA in the Olifants catchment around 2001, argued that the establishment of CMAs might weaken government’s ability to achieve its transformation and equity objectives. In 2018, a WRC working paper (WRC, 2018) suggested that “the extent to which such perceptions have contributed to the lack of progress in establishing CMAs may require further investigation” (2018:20).

The transformation of the major water users, irrigation boards, has not been successful. This history of failure has revealed – besides the existence of opposing interests – that there are technical and economic challenges: irrigation boards represent a system of farms and irrigation infrastructure along rivers, which consist of strong legal rights. Ownership of farms with irrigation rights seem the most promising method of transformation. There are also concerns, expressed by some DWS officials, about what may happen to production (output) if irrigation boards are forced into change, as well as environmental damage. These arguments are challenged by other officials who see in them a

resistance to the re-allocation of water. The answer would seem to be a careful study of the dynamics of irrigation boards in practice, and then a strategic approach to their transformation (or indeed to a reallocation of water resources to reflect the country's demographics). This implies that water reallocation should work closely with land reform initiatives, rather than on their own.

2.2.8 Strong local actors will dominate CMAs as decentralised bodies

This is a related argument. There is a perception that strong local actors will dominate CMAs as decentralised bodies, if there are no counter-measures that support and develop actors that have been historically disadvantaged. There is a possibility that these strong actors will fill vacuums created by lack of funding. There are two types of strong local actors – corporates such as SASOL and Eskom, and strong local actors, who are not necessarily strong outside the catchment. For example Blesbokspruit major polluter Karan Beef (that has a feedlot on a slope above a tributary of the Blesbokspruit) provides steaks for meals at Blesbok Forum meetings!

A counter-argument are that many strong local actors are also strong nationally – for example major water users Sasol, Eskom, Arcelor Mittal, etc., who have strong representation and policy influence as the Strategic Water Partners Network.

Maybe the most important counter-argument is that these power asymmetries exist and that they need to be addressed pro-actively, e.g. in the manner that IUCMA supports community groupings to participate in CMFs and other CMA activities (also see discussion on support to resource poor farmers in next chapter). This is part of the work of transformation.

2.2.9 State capture in the water sector

The state capture explanation focuses on a perceived roll-back of the CMAs, in response to the withdrawal of CMA delegations in 2015, and the proposal of a single CMA in 2017. While no investigations into the possibility of state capture in the DWS have been completed, there are a number of observations pointing to a systematic dismantling of regulatory capacity. There are also reports of intimidation to coerce water officials into awarding WULs for coal mines in inappropriate areas. The basic argument in this explanation is that the absence of a CMA in the Olifants catchment (or indeed its dismantling after the first steps had been taken to establish it) served a state capture agenda focused on profit taking from the mining industry, although it had other consequences as well through an effective suspension of normal regulatory processes. This explanation views several of the other explanations as smokescreens.

2.3 POLITICS OF WORK, CAREERS AND BUREAUCRACY

2.3.1 Regional DWS heads fear losing turf and position to CMAs

Giving regional DWS offices the task to foster CMAs unwittingly created a conflict of interest. Some regional heads and high-up officials in DWS have resisted (sabotaged) the roll-out of CMAs, based on fear of loss of turf through loss of functions and their accompanying human and financial resources. Some officials historically involved experienced this resistance as ”underhanded” – that is, not in the form of an engagement with policy about CMAs, but in actions that undermined the establishment of CMAs, with occasional warnings that the CMA establishment would not work.

The history between the IUCMA and Mpumalanga DWS regional office in Nelspruit illustrates this. The story is told of a previous DWS regional head declaring “one of these institutions will live, and one will die. I will make sure it’s the CMA that dies.” However, in this area, these animosities have been overcome, and the current working relationship is a very good one, resulting in the elimination of the licensing backlog in the Water Management Area.

2.3.2 A shrinking role for DWS as a department

The establishment of CMAs – and other institutions in the water sector outside the DWS – will mean a major devolution of functions away from the Department. The DWS will be left with policy development, strategic planning, regulatory oversight and support. The DWS regional offices will provide institutional and technical support for water resource management and water services and will fulfil coordination and auditing functions, as spelled out in the NWRS2 (DWA, 2013). There may therefore well be reluctance in DWS – particularly in Head Office – itself to accept shrinking functions, budgets and staff numbers, seniority in cabinet, and influence.

2.3.3 Trade union members fear losses in transition

Trade union members – apart from opposition to the idea of agentisation – also fear loss of staff benefits, pensions, grades, as well as being required to live and work outside of metropolitan areas or current locations. They may have well established networks, schools their children go to, etc. The DWS officials in this category can be estimated at around 1000 employees. It needs to be asked whether these considerations should override national policy. On the other hand, labour rights should be and are guaranteed. The Labour Relations Act requires that an employee fulfilling a function that moves, should move with that function. However, plans and reports on CMA staffing consistently refer to acquiring extra expertise from outside DWS.

Evidence from the experience of CMAs is that “CMAs are very attractive to DWS people, they apply to jobs here”. Another added: “We get lots of job applications from DWS officials; once they land here they are amazed at how hard they have to work as part of the normal every day.”

2.3.4 Obstacles to creating proto CMA structures within DWS

Proto-CMAs were created by bringing together functions that were destined to move to CMA into a virtual structure within the (regional offices of) DWS. However, when proto-CMAs were created, objections were voiced to the creation of a “proto-CMA CEO” post. This apparently led to disciplinary action against the official involved in the creation of this post, and may have led to a chilling effect on other officials to make similar moves in developing institutional architecture within DWS to enable movement towards establishing CMAs.

For some time, a national structure (the CMA CEO Forum convened under the Kingfisher Project, a support project in partnership with the Dutch equivalents of CMAs) existed in which 2 CMAs and 7 proto-CMAs met, but was discontinued after this proto-CMA CEO conflict. Was this a simple correction of bureaucratic procedure or a proxy-battle about the establishment of CMAs?

2.3.5 CMAs have to fight for institutional space

CMA officials relate how they have constantly had to fight for space for these new institutions.

> “We had many meetings, with SALGA, with other government departments, to make sure that they understand our functions. Often we found that they did not even invite us into meetings we should have been part of. It was not just a question of telling them, it meant debating with them about our space in the institutional landscape. Because we were not established at the same time as the other institutions, we are a late comer, and they don't acknowledge who are we, and what role we are playing. We have to claim our space, explain what role are we playing, argue for the centrality of water in their decisions. We really did not get that much recognition, especially from municipalities.”

This is an instance of how strong leadership and communication about CMAs could have eased the road for them, but did not.

2.4 ARGUMENTS AROUND ECONOMICS AND SKILLS

2.4.1 CMAs are expensive

Are CMAs an overly expensive way of achieving good water resources management? In the business case for a single CMA, it was stated that “The Department of Water and Sanitation (DWS) took the decision in June 2017 to establish a single CMA to manage all water resources in South Africa, amid growing concern regarding the costs associated with the establishment of multiple institutions and the need to rationalize and align existing institutions as a mechanism to unburden the state of burgeoning service costs” (DWS, 2017). It notes that the IUCMA has “notably increased staff costs compared to the BGCMA and other Proto-CMA structures” (2017: 46).

Officials estimate that CMAs (or the IWRM work they do) cost about R600 million per year, and this was confirmed by a treasury official. The BGCMA had a budget for 2018/19 in Vote 36 (Medium term expenditure) of R65.8 million, and the IUCMA R123.5 million. At the moment, there is a duplication of some of these functions between DWS and the CMAs, which implies a duplication of (some) expenditure. The counter-argument is that water resource management is crucial in South Africa and CMAs represent the best most cost-effective means of achieving that.

2.4.2 CMAs need to be funded from user charges as well as from the fiscus in the public interest

A crucial issue to agree on funding streams for CMAs, as its work serves both the public interest and specific water users. This suggests that funding all CMA functions from user charges is not feasible or appropriate. Some functions that have a public benefit dimension will need to continue to be funded by the fiscus indefinitely. (This issue was discussed in some detail at the workshop and is followed up in chapter 4.)

2.4.3 There is not enough expertise for 9 CMAs

An interviewee with hands on experience argued that there is not enough expertise for all 9 CMAs, and CMAs don't necessarily have a need for full time experts in all fields. Therefore there should be a central pool of expertise – the numbers that are necessary are not available. It is not clear that this is an argument against CMAs – although it was used in arguing for a “single CMA”. Some CMA staff are not averse to such a central pool of expertise that they can access, and other documents refer to centralised DWS support for catchments (Pearce et al., 2014).

3. CONSEQUENCES OF DELAYS IN ESTABLISHING CATCHMENT MANAGEMENT AGENCIES

3.1 INTRODUCTION

This chapter focuses on consequences of delays in establishing CMAs and finalising institutional arrangements. Six aspects were originally identified to frame this discussion:

1. The ability to manage water allocation in light of droughts, current variability and the challenges of climate change.
2. Water allocation reform, and support to resource poor farmers and land reform.
3. Licensing of water use, ability to monitor compliance, and act on non-compliance.
4. A specific focus on water quality, including the ability to protect water resources against pollution from dysfunctional wastewater works, mines, industry, and agriculture.
5. The ability to engage the public for awareness, and active participation of stakeholders in water resource management.
6. The ability to plan strategically and respond to challenges through adaptive management.

Two further topics emerged during the course of the study:

7. There are limits on the functionality of proto-CMAs.
8. Other actors fill the vacuum in catchment management.

Each of these questions is discussed in the sections that follow.

3.2 ABILITY TO MANAGE WATER ALLOCATION IN LIGHT OF DROUGHTS, CURRENT VARIABILITY AND THE CHALLENGES OF CLIMATE CHANGE

South Africa is prone to droughts and floods. Recent events – the dramatic floods in KZN and Mozambique – have led scientists and activists to warn that climate change is already happening and that such events will intensify. In this section we consider aspects of the Cape Town drought of 2017/18, and look ahead to climate change challenges. The Cape Town drought developed over 3 years from 2014 when dams were 100% full, to 38% full in 2017. Day Zero (when the City would run

out of water) was first set for March 2018, then April 2018, and finally “cancelled” by the City of Cape Town.

An influential “lessons learnt” analysis fails to mention catchment management, except in the limited sense of dealing with alien vegetation (Ziervogel, 2019). It does however deal with the role of the DWS Western Cape regional office, the de facto proto-CMA, which is also in charge of the strategic Western Cape Water Supply System (WCWSS), which connects the Breede Gouritz (as donor catchment) to the City of Cape Town and the Berg-Olifants Water Management Area.

The report records a range of “frustrations” with the Western Cape DWS, including slow responses, not managing water allocations to agriculture at the start of the drought, and delays in licensing when these were urgently needed to take measures for emergency supplies. During the drought, the regional DWS office facilitated the transfer of 10 million m^3 of water from the Groenland Irrigation Board to Cape Town, in exchange for easing the blanket 60% restriction imposed by DWS on the IB, to 10%. The IB argued that this worked for both sides: it freed up water in the system for Cape Town (and other towns) and protected the agricultural economy of the area from ruin. However, this “donation” drew attention to the share of water controlled by the IB and increased pressure for its transformation.

More broadly, the drought response was delayed by political power plays (in the City, between the DA City and the ANC national government on national level, and between a DA City and a DA province as well), problems in accessing monitoring data, competition between social, economic and technical expertise, establishing relationships of trust and collaboration between different stakeholders and levels of government, taking concerted action and accessing expert knowledge. These relationships could, in theory, be built by a CMA that is focused on these water resource management issues. However, it is clear that the proto-CMA was not in a position to do this. This gives reason to consider what limitations on proto-CMAs are (see 3.3.8 below).

The drought response was characterised by strong links between water resources and water services. The City considered various augmentation options while at the same time imposing restrictions on daily water use and – eventually – communicating clearly with water users. The outcome was a reduction of around 50% in water use. A salient point is that the Cape Town drought, among other things, showed the close coupling between water resources and water services in reality.

A number of people – including President Ramaphosa on national television – ascribed the drought to climate change. CMAs will be prominent amongst institutions required to deal with climate change impacts on water resources. The world seems to be locked into an emissions path to at least 2°C

global warming, which in many parts of the world will lead to an unliveable planet. These figures come from the recently released Draft National Climate Change Adaptation Strategy (DEA, 2019:1). On the way to that unliveable planet, increasing numbers of extreme weather events can be anticipated. The two CMAs linked to Cape Town (via the WCWSS) will be expected to deal with the new normal in an increasingly intense weather system driven by climate change.

Both the BGCMA and the IUCMA are developing strategies – and participating in strategy development by other actors – to deal with climate change. While the Olifants WMA is part of an ambitious programme to build climate change resilience, the management of water resources without a CMA leaves a huge gap. Currently, data on both water quantity and quality is seriously out of date – while new water uses are approved and plans to transfer water out of the Olifants catchment go ahead.

3.3 WATER ALLOCATION REFORM, AND SUPPORT TO RESOURCE POOR FARMERS AND LAND REFORM

The transformation of the extreme inequalities in the South African water sector has been a leading issue in water policy. There is extremely skewed access to productive water in racial terms – from 95% to 98% of productive water remains in white hands, depending on the metric. With agriculture being the biggest user of productive water, there has been pressure for the transformation of Irrigation Boards, both in terms of IBs changing into WUAs and meaningful transformation of access to productive water. The two functioning CMAs have responded in giving strong and practical support to the Resource Poor Farmer Support Programme (Policy on financial assistance to resource poor irrigation farmers in terms of sections 61 and 62 of the National Water Act, 1998, dated 29 September 2004.) The IUCMA has also been developing Water Allocation Plans as part of the further development of its CMS. Both have undertaken Validation and Verification processes as a step towards water reallocation.

3.3.1 Control of water in WMAs

More than 60% of South Africa's water resources are allocated to agriculture, mostly irrigation. Water for irrigation has an old history in South Africa. The water act in 1912 was the Irrigation Act, and DWS first existed as the Department of Irrigation. Transformation of IBs needs to take account of the on the ground reality of Irrigation Boards, which is: (1) a schedule of farms with irrigation rights comprises the Irrigation Board (2) these farms are connected into an irrigation system consisting of a stretch or river, dams, weirs, canals and other water control infrastructure (3) the water infrastructure belongs to the (members of) the irrigation board, as it was established either with their

own capital or with Land Bank loans (4) membership of the irrigation board depends on ownership of farms on the schedule and (5) over the years an intricate system of releasing and controlling water has developed. The Western Cape in particular has a long history of state supported and regulated and well developed infrastructure enabling the storage of winter rain for use in summer. The IUCMA also deals with a large number of Irrigation Boards along the Crocodile and Elands rivers.

The transformation of IBs is a historical issue reflecting extreme inequality in productive water access that has to be dealt with. It's the result of historical land and water grabs. In the 2014 National Water Policy Review, CMAs are given the task to disestablish or convert Irrigation Boards and Water users Associations, with the option of absorbing some of their functions. It will be up to CMAs – within the framework of national legislation – to decided which local water resources management institutions are needed.

This research has shown the water sector cannot achieve water allocation reform on its own. It has to work in tandem with land reform. With their mandate in water resource allocation, can CMAs play a role in this transformation which will require close co-operation and dialogue between water users, and with other sectors and departments?

3.3.2 Support to resource poor farmers

The two existing CMAs have worked enthusiastically to support DWS policy on resource poor farmer support. The CMAs are confident that they have extensive knowledge of who these farmers are, that they are in ongoing contact with them and are able to provide assistance to them, as well as broker further support by supporting these farmers to network with other arms of government such as agricultural extension.

Proto-CMAs do not have the same exposure to these issues and the same ability to support them, and the delay in CMA establishment has deprived these farmers of possible immediate support.

A remaining challenge is to move these farmers up the hierarchy of water use rights, which may be achieved by giving a stronger legal status to general authorisation and schedule 1 uses. Nevertheless, resource poor farmer support on its own is not likely to transform the allocation of productive water in the country so the tough institutional questions around IBs are likely to remain.

3.4 LICENSING OF WATER USE, AND ABILITY TO MONITOR COMPLIANCE, AND ACT ON COMPLIANCE FAILURES

Licensing is a crucial part of (1) people's governance of water through government's role as custodian of water regulating its use, and (2) transformation of water use after colonialism and apartheid. From the beginning of democracy in South Africa licensing was seen as a challenging task, and international friends advised South Africans to accept “existing lawful uses” in light of both the administrative burden reviewing all of these would impose, and economic uncertainties wholesale reallocation may cause.

Nevertheless a national licensing backlog has persisted and caused many problems. Inadequate licensing has, for example, prevented action being taken against water users who overdraw water, for example the case of the farmers in Liebenbergsvlei, who are taking Lesotho Highlands Water as it comes past them. An additional problem is inappropriate license conditions, the result of the lack of familiarity of licensing officials with the conditions on the ground.

CMAs have shown themselves capable of handling the licensing process in their own areas, despite being hamstrung by lack of delegation of powers to do licensing. The IUCMA has found a way past it by processing licences together with regional office, in a special shared task team. IUCMA writes the licence, DWS signs off, and IUCMA polices the licence.

The BGCMA points to their successes in producing licences because they are more immediately available to those who apply for licences. This results in (1) responsiveness because water users can enquire directly from CMA offices about progress on their license applications (the officials are known to the applicants) (2) licensing officials can more easily call on applicants to complete or adjust forms and (3) knowledge of local conditions is an advantage in producing appropriate licenses.

3.5 WATER QUALITY, INCLUDING THE ABILITY TO PROTECT WATER RESOURCES AGAINST POLLUTION FROM DYSFUNCTIONAL WASTEWATER WORKS, MINES, INDUSTRY AND AGRICULTURE

Water quality issues present a real threat to water resource management in South Africa.

Dysfunctional Wastewater Treatment Works (WWTWs) involve local government as the prime culprit, and at least 55% of their works are dysfunctional (DWS, 2018). This issue leads to tension between local government and CMAs, partly since local stakeholders, e.g. in CMFs repeatedly

complain about these incidents. The root of problem seems to be that WWTW are (1) a source of income for local government, protected by the constitution and (2) not a priority for them, so money is moved away to other, more visible priorities and not spent on this. (3) There is a lack of co-ordinated planning, e.g. WWTW capacity should be increased if new toilets (upgrades or new houses) are connected; (4) a lack of understanding of the serious consequences for constituents (5) as well as general questions about local government's general lack of performance and capacity (Munnik and Barnes, 2016).

Pollution from mining – such as acid mine drainage from both coal and gold mines – is another major concern. While coal mining in the Upper Olifants, for example, uses 7% of the water, it pollutes more than 70% of it. In the words of a local observer:

> Mpumalanga has really been hammered by mining. Now coal mines are emerging in the Elands and Wilge catchments. Those areas used to be refugia, but they are getting hammered. There is no regulation of coal mining in practice. Some mines don't even bother applying for a water use license. They calculate that they can avoid attention for 5 years – and then they are out of there. It's a very well-engineered system of avoidance. They move from prospecting licence straight into mining. The Steelpoort system is also getting hammered through platinum mining.

State capture has also hit the Olifants hard. This view is based on observation of various incidents that don't make sense otherwise. State capture is used to explain the 2015 withdrawal of delegated functions, the one CMA decision, as well as actual patterns in allocation of WULs to mines, and ignoring mines' non-compliance. There are a number of incidents of intimidation of water officials connected to coal mine WULs.

Can CMAs make a difference?

An informed view is yes, there is more robust management of mine water issues under the IUCMA – more focused and more output-driven – relative to the Olifants, although the Olifants is a larger catchment with more complex mining operations. The absence of a CMA in the mining-heavy Olifants catchment means that water pollution problems remain ongoing.

CMA structures, such as Forums, allow mines to be drawn into the responsible management of catchments. For example the Upper Komati CMF, supported by the IUCMA, is chaired by an environmental manager from a mine (although DMR itself is consistently absent from this forum). Mines present their monitoring results and explain their activities and challenges to the CMF.

CMAs are also better (than DWS) at monitoring water quality, sharing information with the public and following up on compliance. It is highly likely that the delay in establishment of CMAs have allowed water quality problems to continue in many areas. According to one observer: “There could be vested interests that don’t want to see the CMA up and running, so they can continue these unlawful mining practices.”

Existing CMAs do many more inspections than DWS, and challenge polluters more immediately:

> “Doing many inspections is important. If stakeholders don't know what is right and wrong, they won't improve… because of our many inspections, we get to the detail, this dam is wrong, that one is right… you can get them to show progress, they start moving, you are putting pressure by being on site with them during inspections. It’s like visible policing, you have to see the police van every 2 to 3 hours coming past… In our area, inspections are very regular. We are installing probes where we can see if they are discharging during night hours. We not only do regular inspections, we are unpredictable. If we see something, we stop, enter, take samples – because the act allows us to conduct inspections with or without notice… “

3.6 THE ABILITY TO ENGAGE THE PUBLIC FOR AWARENESS, AND ACTIVE PARTICIPATION OF STAKEHOLDERS IN WATER RESOURCE MANAGEMENT

Stakeholder participation is a crucial reason for decentralised catchment management, and a basic IWRM principle. Decentralisation allows for closeness (contact in person) and therefore responsiveness to stakeholders. It encourages stakeholders to play an important role in catchment management. The strongest supporters of CMAs are stakeholders, who have been organised in CMFs and other structures.

The IUCMA sets an example in systematic and pro-active engagement of and support to stakeholders. Quite often stakeholders have organised themselves, or invested in organisation and resources to participate in emerging catchment management structures. These range from the SA Water Caucus to the Water Partnership group. The BGCMA has chosen the route of integrating water issues into other, pre-existing forums.

Successful IWRM requires CMAs to perform a work of social transformation. It is the democratisation of water management, enabling all catchment stakeholders to participate in making decisions that affect them, to formulate strategies based on their own, context-specific practices.

> "This process cannot work without a CMA. It will not happen on its own. A CMA offers a platform where people can engage constructively. At first, CMF meetings were fraught with tension, but after a while people realised they are sharing the same catchment. Then they start coming with ideas that change the system. You have to get this systemic identity developing. This process of developing trust, of developing a shared identity, is a very difficult thing to do. But it happened very successfully, for example, in the Crocodile catchment."
>
> "In the Olifants, in contrast, the absence of a CMA means that the process of trust building and local identification with the catchment, a sense of shared responsibility and the emergence of co-operation between previously antagonistic water users, does not or cannot occur. The result is ongoing suspicion, resentment and frustration."
>
> "There are also basic skills for running these spaces: how to act as secretariat, take and send out minutes, have continuity of process. When these skills are absent, it is the result of poor training. This leads to stakeholder frustration and eventually fatigue.''

In some areas, the stop-start process of delaying CMA establishment, has had a negative effect on stakeholders, especially those organised in CMFs, and who do a lot of volunteer work for the CMFs. They are still keen on CMAs, but they show a degree of disillusionment and distrust now. A long serving chairperson of such a forum described the change from 19 to 9 CMAs in 2012 as…

> "…a huge shock. And they did not announce it, it just came out in answer to a question that we put. External stakeholders were not informed, and nobody explained to them what was going on. I feel very sorry for senior officials, they are under incredible political pressure."

Other developments in government – especially corruption through networks of state capture – have made catchment stakeholders suspicious of all government departments, including DWS. External stakeholders point out that building awareness and participation needs trust, and that the stop and start establishment processes, as well as the lack of clarity and communication about what is going on, has undermined that trust. But, despite many concerns, stakeholders "would still support CMAs if they operate like originally designed".

One of the casualties of the delayed establishment of CMAs is that Catchment Management Strategies (CMS) have not been developed outside of the two operational CMAs. The strength of a CMS lies in its combination of good technical information and a participatory testing and ordering of such information. This has meant a lack of detailed and co-ordinated planning in many catchments. While some internal DWS initiatives have alleviated the problem, such as the internal strategic perspectives, they miss the participatory component.

3.7 THE ABILITY TO PLAN STRATEGICALLY AND RESPOND TO CHALLENGES THROUGH ADAPTIVE MANAGEMENT

CMAs present a new working culture. Since 2006/7 the two CMAs have consistently had unqualified audits for their annual reports in sharp contrast to DWS, as evidenced in, for example, the discussion of the parliamentary National Standing Committee on Public Accounts (SCOPA) hearings of 18 November 2018 into the accounts of DWS (Parliamentary Monitoring Group, 2018b).

One cannot manage water resources without other sector partners. The experience of DWS officials in Pretoria is one of extreme difficulty in organising discussions with other sectors. However, on a local, catchment management level, such co-ordination is much easier. CMAs are far more responsive to stakeholders, with far fewer layers of decision making than DWS national, and even regional offices. The CMAs have developed a working culture that is responsive because officials are known and contactable. Individual responsibilities are assigned, water users are able to visit offices and inquire, e.g. on progress on their licences (seen both BGCMA and IUCMA).

Strategic adaptive management (SAM)[2] will be a core requirement when CMAs have to deal with climate change disruption to South African water resources. The exact forms that climate change impacts will take are difficult to predict because of (1) strong geographical variation in impacts, e.g. a drier inland and a wetter coastal zone and (2) inherent uncertainties about climate change processes, e.g. the intensity of changes could be influenced by “tipping points” where change is sudden instead of gradual. Adaptive management responds to uncertainties by learning from experience and iterative planning, i.e. it changes as the goal posts shift. The ICMA’s first catchment management strategy, in 2003, was explicitly formulated in terms of SAM, and IUCMA staff refer to the concept in explaining how they work.

3.8 LIMITATIONS ON PROTO CMAS

Some of the limitations referred to above can be seen in the working of the proto-CMAs. Even in the best-case scenario for proto-CMAs, that is in KZN, there are a number of things missing, for example the development of a full blown participatory CMS, even though the proto-CMA has used available internal resources to move towards developing a CMS. Also, there are far fewer possibilities for pro-active engagement with a number of crucial areas:

[2] Strategic Adaptive Management (SAM) is a fundamentally stakeholder-centred management approach that facilitates the iterative development of shared rationalities and future-focused objectives, as the basis for adaptive cycles of consensual decision making (Rogers and Luton, 2011: vi).

> "As a proto-CMA, we are not dealing with droughts, floods and climate change. We implement restrictions as per operating rules. There is no disaster management, no pro-active climate change policy. The reasons are constraints on resources and capacity. If we were a CMA we could be much more pro-active."

Proto-CMAs also cannot support CMFs as they would like to. In some areas (examples are Berg-Olifants and the Olifants catchments, at time of writing) water quality monitoring is not done – because the laboratories have not been paid. This is the direct result of DWS financial troubles.

DWS revenue collection for water resource management is not working well, at around 60% (DWS, 2018). Reasons for under-collection include problems with keeping databases updated, invoicing accurately and following up with defaulters, among others. A delegation from an IB, frustrated at not being able to pay for their water use, flew to Pretoria to assist DWS in formulating a correct invoice to them. Another IB that had been withholding funds from DWS, paid this over to a CMA. CMAs have a much better chance of collecting revenue as they are in contact with water users who need to pay, and have an immediate interest in collecting the money. The longer proto-CMAs are not transformed into CMAs, the longer these limitations will hamper water resource management at catchment level.

3.9 OTHERS FILL THE VACUUM

One consequence of the delayed establishment of CMAs – as well as the dysfunctions of DWS – is that other organisations have filled the vacuums left by them. Monitoring has in some areas been done by other organisations as well, so this is not entirely new; for example Rand Water has continued with its historic monitoring function. In the Western Cape, what is now the Berg/Olifants proto-CMA, has not been able to do water quality monitoring. Some of the function is now being done by the Western Cape Department of Environmental Affairs and Development Planning (DEADP), which has 20 water quality monitoring points in the area. Irrigation Boards do their own water quality testing to safeguard their members' products in sensitive markets. But they go further. When high E Coli counts from an informal settlement threatened irrigated exports, the Groenland IB created an artificial wetland as a buffer for water quality problems. Other civil society people have also got involved, including universities, in the Berg partnership to deal with water quality issues which threatened the local economy. In the Olifants, where there are more than 360 water quality monitoring points, around 20 are now being monitored by AWARD.

Although there are actors who step into the breach left by DWS challenges, they cannot replace DWS or a CMA, due to their own limited resources and mandates. It is not sustainable.

4. CONCLUSIONS & RECOMMENDATIONS

4.1 INTRODUCTION

The final chapter responds to the need to identify priority actions to ensure and speed up the establishment of functional CMAs that will be able to live up to expectations of various stakeholders. The actions proposed here are not of a legislative kind, but are in the nature of participatory action research, in which research supports participants to reach their goals (Strydom, 2012). Proposals for change in policy and/or legislation may follow from such action research. This chapter also offers a response from a group of stakeholders who have been intimately involved with efforts to establish CMAs, to the first three chapters of the report, which is presented in the next section.

4.2 RESPONSES FROM WORKSHOP PARTICIPANTS TO DISCUSSION PAPER

The previous version of chapters 1 to 3 of this report, plus a series of 9 discussion points (see Appendix B), were presented in the form of a discussion paper, circulated before the workshop of 21 May 2019. This section engages with the responses to this discussion report from this workshop.

4.2.1 Which explanations for the delayed establishment are most convincing and important?

It is clear that there are multiple dynamics at play behind the delays in establishing CMAs. Even after an earnest attempt to prioritise dynamics, 16 priority dynamics remained, organised into three areas by the participants in the workshop: namely dynamics in the political, administrative and economic environments.

Political environment:

In the political environment, the participants singled out two underlying reasons. The first is a general lack of understanding of IWRM and its emphasis on management of water resources along hydrological boundaries. It may point to the “difficult language” of IWRM, also mentioned in the workshop, or to controversial elements in IWRM, for example how to strike the balance between water as an economic, and as a social good. However, there is no competing framework adequate to the complex task of Integrated Water Resources Management, and the answer lies in revising and refining IWRM rather than rejecting it in total.

The second explanation was expressed as “a lack of consensus about which functions to transfer to CMAs”. This lack of consensus may be a reflection of a technical debate about functions, or a debate

driven by turf politics in which functions equal numbers of staff equals power and importance of senior bureaucrats.

The remaining 4 of the 6 drivers identified in the political environment reflect the impacts of a political culture that has arguably characterised the DWS during the past nine years of state capture (2009-2018). At its core is a lack of accountability and a failure to hold DWS accountable, including in the parliamentary portfolio committee, although there are signs that this culture is changing as shown by recent discussions in parliament (Parliamentary Monitoring Group, 2018a, 2018b.) Part of this political culture is reflected in the power of ministers and high level political appointees to ignore agreed policy and implementation plans within the department, or at a minimum to subject them to ongoing revisions. The results are:

- Policy uncertainty and inconsistent interpretation of legislation, which create the impression that political heads do not accept the long-term mandates in legislation, but respond to short term political “whims”.
- The governing party seems not to differentiate between party and government, including allowing political relationships within the alliance, for example with the trade unions, to influence decision-making within departments (but see discussion on dialogue with trade unions in 4.3.3. below, which treats trade unions as complicated internal and external stakeholders in the CMA establishment process).
- Officials and stakeholders have to deal with the influence of personalities rather than policy, since new ministers arrive with new advisors as well as appoint new senior bureaucrats. This works against stable implementation as it creates uncertainty.
- The above create the risk of policy shifts without stakeholder participation and without oversight from the parliamentary portfolio committee, as evidenced in the proposal for a single CMA and the water sector response to it.

Administrative environment

- An important public administrative matter is the ongoing confusion between the DWS trading account (income generated by DWS) and its main account (the budget allocated to the department by parliament). For example, the proto-CMAs are currently not strictly ring-fenced, and salaries and overheads come from both. Not separating the two accounts clearly prevents building a stable financial platform for the transition from proto-CMAs to CMAs, and confusion in the planning of funding for CMAs.
- Trade union opposition to the establishment of CMAs because of uncertainty about the application of Basic Conditions of Employment (such as benefits) is an important hampering force. This has been worsened by confusion about whether there will be new staff

establishments at CMAs, or transfers to CMAs from DWS. In other words, there is no clear planning for staffing of CMAs.

This issue needs proper consultation with trade unions, including NEHAWU. Trade unions are internal stakeholders in this process, and should be treated as such. The issue should in addition be handled by clearing up administrative issues, such as starting with a Human Resources audit of the estimated 1000 staff members potentially involved, which will allow DWS to deal with cases on an individual basis. If this is done, staff members could have the opportunity to choose whether they want to move to CMAs or not. However, this is closely related to and ultimately dependent on resolving the following knot:

- Many of the more detailed issues are underlain by a lack of consistent leadership (political and administrative) and the absence of focused change management. In particular, there is currently a lack of change agents in the DWS to address issues around culture shock, when moving from DWS to CMAs, for example through performance management.

Economic environment

- Participants were concerned about a poor understanding of how the CMAs are to be financed by Treasury, saying “we have not argued strongly enough for financing model for CMAs that understands public interest functions, and basis for charge and tax theory. Treasury argues that the CMA model is too expensive. This area has not been strongly enough fought for, in the first place by DWS itself. For this to work, it needs political buy-in.” But not just government, users will also need to understand that it will cost more for proper, sustainable management. Participants also expressed concerns about cross-subsidies (caps on charges to agriculture and forestry, for example) resulting in subsidisation from industrial and municipal users or the fiscus.

- An immediate practical concern is the estimated 40% of potential revenue that is currently not being collected by the Proto-CMAs. It is also a future concern because it means that cost recovery systems may not be robust when these functions are handed over to CMAs and will result in less revenue as well as extra work to improve these systems. In addition, plans for the redirecting of water use charges from DWS to the CMAs are not clear.

- Participants also felt that IWRM is often presented in difficult language: “we need to communicate differently to treasury, but also to other stakeholders”. This is a complicated issue. On the one hand, IWRM has to deal with concepts such as ecological economics, public interest, payments for ecological services, on the other, this needs to be presented in a clear and convincing manner.

4.2.2 What are the consequences of delayed establishment?

Participants affirmed their conviction that CMAs are important support institution for successful water resource management in SA. A range of other consequences were spelled out in chapter 3, and during the workshop, no arguments were raised about these. (Section 4.2.2. should thus be read with chapter 3.)

- Concern was raised about the loss of stakeholder trust and support, "because we have had an expectation of the establishment of CMAs for such a long time, people thought they would come, expectations faded. It seems to many that the institutional provisions in NWA itself have faded away…"

- Participants argued that, because of the delay in establishing CMAs, it was difficult to measure whether water resource management objectives were being achieved. This has resulted in a gap between centralised water management and the reality on the ground.

- A related concern was the lack of oversight at local level in the absence of CMAs.

- Participants expressed concern about expertise and skills that have drained away from DWS, but expressed the hope that these may be brought back in CMAs.

4.3 PRIORITY ACTIONS TO DEAL WITH DELAY OF ESTABLISHING CMAS

The following areas were developed by workshop participants as priority actions to deal with the dynamics that have resulted in the delay in establishing CMAS.

4.3.1 Support DWS in developing a clear strategy for establishment of remaining CMAs

Success in establishing the remaining CMAs ultimately depends on the DWS embracing its mandate to establish the remaining seven CMAs, and developing a clear strategy for this purpose. This needs to include engagement with key stakeholders and a clear communication strategy empowering officials on the ground in their interactions with stakeholders. Experience has shown that key affected parties, like staff and unions, have to be engaged in conversation as early as possible.

DWS may need to deal with fundamental policy issues. Even though the establishment of CMAs is established policy, there is strong evidence that it needs to be better understood by many relevant actors, including DWS officials, trade unions and politicians. At the core is the idea – and in the case of the two existing CMAs an emerging practice – that decentralisation brings government closer to

the people, improves responsiveness and has the potential to revitalise a culture of Batho Pele, or putting people first.

Another important aspect is to show the need for, and effectiveness of, managing water resources within river-based units, while acknowledging the importance of political boundaries. Such polycentric models are inevitable in modern governance systems where jurisdictions overlap and a large degree of coordination is needed between organs of state exercising related functions (Muller, 2012).

DWS then needs to create and sustain momentum of policy intentions within the department. At national level, DWS should be part of the development of a more stable civil service, less buffeted by political changes, implied factionalism, and personality driven policy implementation. This momentum can be supported by the action research items suggested below.

4.3.2 Document achievements and experiences of the two existing CMAs

Concrete examples speak louder than words. A good starting point is to document and present in clear (non-specialist) language, the achievements and experiences of the two existing CMAs. This should show how the two existing CMAs have tackled a range of challenges and what they have achieved. If these are well documented and their implications analysed, it can help deal with issues such as:

1. Understanding what CMAs do, why water resource management is important, and what can be achieved in this area.
2. Innovative aspects of CMAs, such as a different working culture (more responsive, quicker), closer to water users, and integration of different skills (e.g. participation support and scientific monitoring), as well as with other government departments.
3. Direct accountability to stakeholders, conscious and comprehensive support to stakeholders' participation and resultant well-attended catchment management forums.
4. Transformation processes including the preparatory step of verification and validation, and creating a co-operative atmosphere in which water reallocation becomes possible.
5. Up to date licensing, regular inspections and close relationships with water users to achieve compliance.
6. A good understanding of catchment and users' needs based on the Catchment Management Strategy.

Such short term research would provide an accessible body of evidence on which to base arguments and discussion with both internal and external stakeholders. This could usefully include a comparison

between the CMAs and the current proto-CMAs, which could support a trajectory of transition from proto-CMAs to CMAs and deal with transitional issues (see 4.2.1).

The results of such research could also guide the way in which (structure and functioning) the other CMAs are established, specifically as regards their structure and functioning. The experience of the current CMAs presents a guide on what to do and not to do.

4.3.3 Develop a clear understanding with trade unions about the public nature of CMAs, and details of transition to CMAs

DWS and other stakeholders in CMAs need to develop a clear understanding with the trade unions involved, about the public nature of CMAs, as well as details of the transition to CMAs of certain DWS functions, as it will affect their members. Clear, open communication and a willingness to listen are key. Labour unions are important internal stakeholders for DWS. Unions are also political actors in civil society, and de facto policy makers in their own right, albeit through indirect channels.

There are some fundamental steps to including Labour in the CMA discussions and decision-making: Labour needs to be recognised as a stakeholder within process of establishing a CMA. Engagement should be from the on-set. Labour should be invited with water users to shared meetings. The engagement should be frank, and persist to the point that Labour wants to assist in the establishment of CMAs because Labour feels comfortable with them. An important point is to undo the impression that CMAs would be a form of privatisation. But this is not the case, the CMA remains a public entity, the minister is the shareholder and the DWS remains the custodian of water resources. As one participant from a labour background put it:

> “When you want to do something, get people to understand what the reasoning behind it is. Then you work out what are the mechanisms. You find common ground in the solution.”

4.3.4 Involve stakeholders who have been part of CMA establishment processes, and win back their trust

Stakeholders are not only the most enthusiastic supporters of the CMAs, but also crucial participants in the process of both water resource management and trust building to enable transformation. Stakeholders, especially those already involved in processes – with CMAs as well as with proto-CMAs – should be drawn in a revitalisation process of participant engagement.

However, the success of this approach depends on the overall definition and communication of an establishment strategy, otherwise officials will be hard put to communicate with stakeholders. There

was some expectation among participants that the era of non-consultation with civil society is over, with the 6th Parliament, and that the relationship between the DWS and civil society would improve.

4.3.5 CMAs need to be oriented towards and willing to effect institutional transformation and reallocation of water

Transformation – in the sense of reallocation of water as well as transformation of local water resource management institutions involved in water allocation – is a political priority in South Africa. It is crucial for political support to CMAs that they are oriented towards and willing to effect transformation and work strongly towards equity in the water sector. CMAs have strengths or potential strengths in this regard. For example, CMAs can drive processes of mutual understanding leading to transformation. CMAs have or can develop detailed local knowledge needed for transformation processes, for example in the case of Irrigation Boards. Again, this depends on a clear political understanding of transformation within which the CMAs and their stakeholders can work. The two existing CMAs have good working relationships with local management institutions, including Irrigation Boards. As with other aspects, there is a need to learn from recent history:

> "CMAs can effect transformation via compulsory licensing, where it is set as a condition that the institution must transform, and be given a chance to explain how they will transform. WUAs are both private and state organs… some transformation is hampered by these institutions."

> "Unfortunately, transformation stopped as a result of the declared 2013 DWS policy position, that said IBs will cease to exist. When it came to signing the disestablishment order, the then minister refused."

Participants proposed that focused research be undertaken on what exactly is meant by transformation, and whether there is any evidence that establishing CMAs facilitates the processes of transformation in the WMAs they are responsible for. Such research should identify what are drivers of transformation and what are obstacles.

4.3.6 Present a clear case to Treasury for CMA funding

The starting point in presenting a clear case to Treasure for CMA funding should be close interaction with the Treasury to understand exactly what questions and reservations the Treasury has about CMAs, and how these can be best dealt with.

DWS is the obvious champion for presenting a clear case to Treasury for CMA funding. However, DWS could be supported by other actors drawing together and developing existing arguments, including the importance of water resources for the economy, society and nature. The arguments are that CMAs present the best available way to protect and transform the use of water resources, and that the cost of CMAs is a reasonable price to pay for sustaining the many sectors, from households to agriculture to industry, that depend on water resources and the ecosystems that support them.

This is not a new area of work. Available resources include *Guidelines for Financing Catchment Management Agencies in South Africa* (Pegram and Palmer, 2001), *Financial Viability of Catchment Management Agencies. Financial Analysis and Policy Consideratio*ns (DWS, 2012) and *An analysis of water pricing instruments governed by the DWA water pricing strategy, and its potential for generating revenue for CMAs*. (Pearce et al., 2014), as well as detailed business cases for CMAs. This literature raises questions of how to differentiate between functions supported by water user charges, functions that are in the general public interest, and how to fund the protection of ecosystem services in the water sector. This literature points out that the cost for CMAs (when all nine are up and running) would be around R828 million (Pearce et al., 2014), to secure the basis for a water sector that was valued at infrastructure of R93 billion and operating expenditure of R22 billion in 2009 (Jurgens, 2009). This is only the direct value of the water sector, it also supports, for example, the agricultural sector, which was valued at R263.2 billion in 2016 (DWS, 2018).

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APPENDIX A: RECOMMENDATIONS FOR DISCUSSION AT 21 MAY 2019 WORKSHOP

The following recommendations were presented as points of departure or provocations for the workshop of 21 May 2019.

4.1 CMAs are not only the best tool for IWRM, but they represent a new working culture of responsiveness, closeness to water users and active support for public participation.

4.2 The establishment of CMAs is important as a point of regeneration for a department that faces many challenges, some of them self-inflicted.

4.3 Increasingly severe climate change will pose serious challenges to the South African water sector, and there is no time for delays in establishing robust water resource management.

4.4. IWRM and water quality management remain critical for South Africa as a whole.

4.5 Over 25 years we have learnt that transformation including reallocation of productive water is a complex task that requires understanding mechanisms of water resource management, e.g. the work that Irrigation Boards do and how they do it. A crucial question is whether CMAs will enable or inhibit the transformation of the sector, and the allocation of water use – or maybe rather what CMAs will have to do to help achieve the transformation of the water sector.

4.6 CMAs can only be established through a proper process of change management driven by clear leadership with transparent communication.

4.7 Public participation in IWRM is essential part of its success in CMAs. This is also not simple, so specific support has to be given to weaker actors to participate properly (as IUCMA does).

4.8 The split between water services and water resources has to be reconsidered in terms of water resource management in practice. As the Cape Town drought has shown, these aspects operate very closely together.

4.9 A very careful consideration is needed of the cost and funding of catchment management. What is it worth and what does it cost?